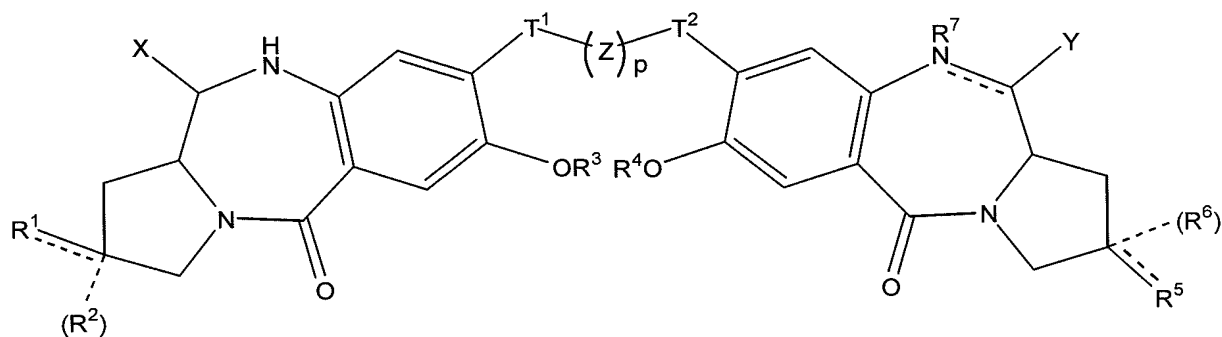


AMENDMENTS TO THE CLAIMS

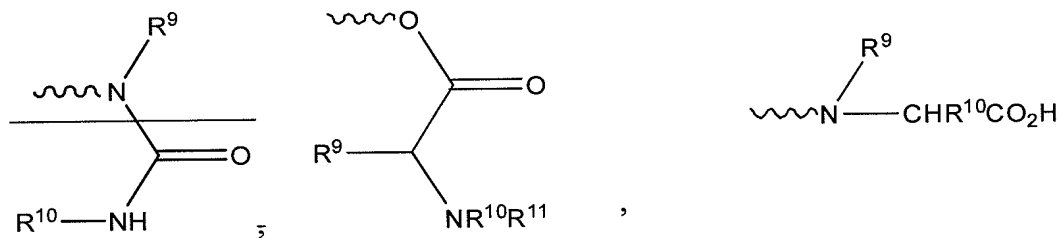
This listing of claims replaces all prior versions, and listings, of claims in the application.

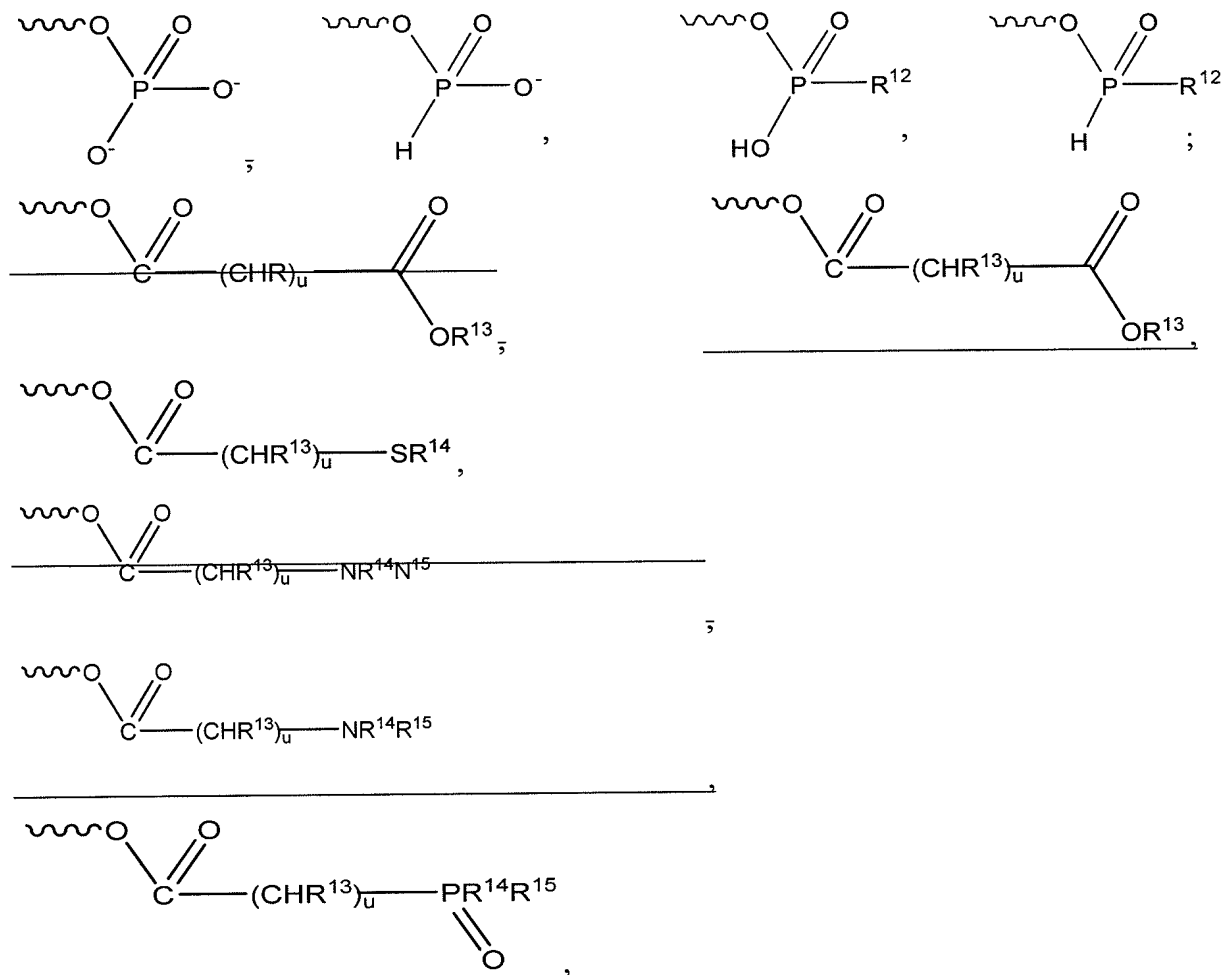
1. (Currently Amended) A compound of Formula I:



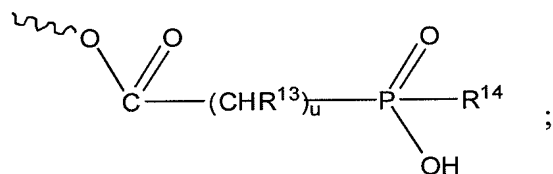
(Formula I)

wherein X is a substituent selected from the group consisting of an OH, —OR, —OSiH₃, —OSiRR'R'', —OCOR, —OCOR, —OCONHR, —OCSNHR, —SH, —SR, —SOR, —SOOR, —OSO₂R, —OSO₂H, —NH₂, —NHCOR, —NR'COR, —NHR, —NRR', —N₃, —CN, halogen, —P⁺Ph₃ X⁻, —SiH₃, —SiRR'R'', —OCSOR, —OCO(CHR)_uCOOR, —OCO(CHR)_uSR', OCO(CHR)_uNR'R'', —OCO(CHR)_uP(=)R'R'', —OCO(CHR)_uP(=O)R'R'', —OCO(CHR)_uP(=O)(OH)(R'), cysteine, [[and]] glutathione,





[[or]]and



wherein each of R^9 , R^{10} , and R^{11} is independently selected from the group consisting of H, a C_1 - C_8 alkyl optionally substituted with an amine or a carboxylate; an aryl; an aryl alkyl; and a heterocycle;

wherein R^{12} is C_1 - C_8 alkyl optionally substituted with an aryl, a heterocycle, an alkoxy, a halo, an amine, or carboxylate; an aryl; or a heterocycle,

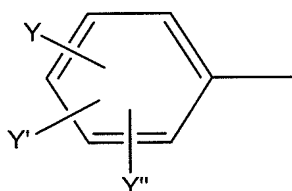
wherein each of R^{13} , R^{14} , and R^{15} is independently selected from the group consisting of H; C_1 - C_8 alkyl optionally substituted with an aryl, a heterocycle, an alkoxy, a halo, an amine, or carboxylate; an aryl; and a heterocycle, and wherein u is an integer from 1 to about 16,

~~wherein each of R^{16} and R^{17} is independently H; C_1 - C_8 alkyl optionally substituted with an aryl, a heterocycle, an alkoxy, a halo, an amine, or carboxylate; an aryl; or a heterocycle; a monohydroxylic or a polyhydroxylic group;~~

wherein the bond between the carbon to which Y is attached and the N of NR^7 to which the carbon is attached is a single bond or a double bond, wherein, when the bond is a double bond, R^7 is absent and Y is H, and, when the bond is a single bond, R^7 is H and Y is a substituent selected from the group defined for X, wherein Y is optionally the same as X;

wherein each of T^1 and T^2 is independently O, S, or NR^8 ;

wherein R, R' , and R'' are independently selected from the group consisting of C_1 - C_{24} alkyl optionally substituted with an amino, hydroxyl, or thiol group, C_3 - C_{24} cycloalkyl, C_2 - C_{24} alkenyl, C_3 - C_{26} alkoxyacetyl, and a group of the structure:



wherein Y and Y' are independently hydrogen, C_1 - C_{24} alkyl, arylalkyl, C_2 - C_{24} alkenyl, C_2 - C_{24} alkynyl, C_1 - C_{24} alkoxy, halogen, or Y and Y' taken together form 3,4-methylenedioxy, and Y'' is hydrogen, C_1 - C_{24} alkyl, C_1 - C_{24} alkoxy, or halogen; naphthalenalkyl optionally substituted by methyl or halogen; phenyl(C_2 - C_{24} alkenyl) wherein the phenyl is optionally substituted with methyl or halogen; cinnamyl; pyridinealkyl optionally substituted with methyl or halogen; dihydropyridinealkyl optionally substituted with C_1 - C_{24} alkyl; thiophenealkyl optionally substituted with methyl or halogen; C_6 - C_{14} aryl; allyl; and furanalkyl optionally substituted with methyl or halogen;

wherein Z is a divalent radical of an alkane, an alkene, or an alkyne;

wherein p is an integer that is greater than or equal to 2;

wherein each of R^3 , R^4 , and R^8 is independently a hydrogen; a C_1 - C_{24} alkyl, C_2 - C_{24} alkenyl, or C_2 - C_{24} alkynyl, optionally substituted with a group selected from the group consisting of an aryl, a heterocycle, and an amine; or an aryl optionally substituted with an alkyl, an aryl, an alkoxy, a halo, an amine, a hydroxy, or a trifluoromethyl;

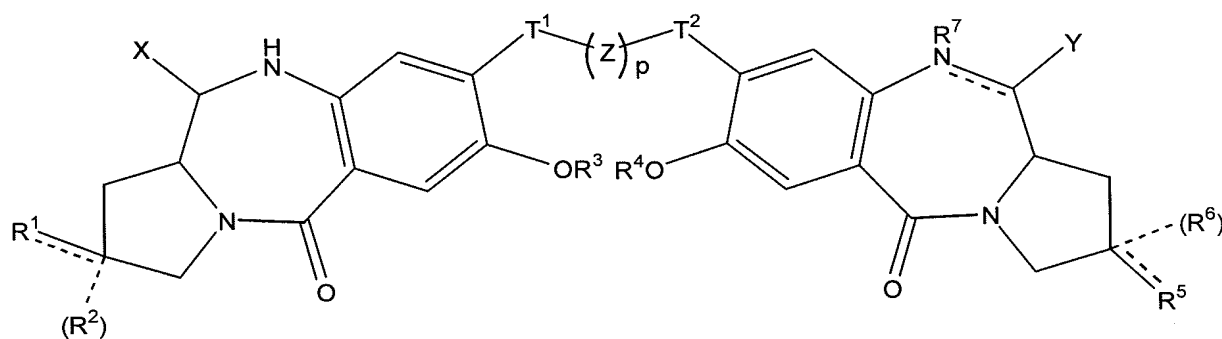
wherein the bond between R^1 and the carbon to which R^1 is attached is a single bond or a double bond, wherein, when the bond is a double bond, R^2 is absent and R^1 is a divalent radical derived from an alkane, an aromatic hydrocarbon, or a heterocycle, and when the bond is a single bond, R^1 and R^2 are independently selected from the group consisting of H, C_1 - C_8 alkyl, aryl, and a heterocycle; and

wherein the bond between R^5 and the carbon to which R^5 is attached is a single bond or a double bond, wherein, when the bond is a double bond, R^6 is absent and R^5 is a divalent radical derived from an alkane, an aromatic hydrocarbon, or a heterocycle, and when the bond is a single bond, R^5 and R^6 are independently selected from the group consisting of H, C_1 - C_8 alkyl, aryl, and a heterocycle;

or a salt thereof,

wherein the compound is a solid.

2. (Currently Amended) A compound of Formula I:



(Formula I)

wherein X is a substituent selected from the group consisting of an OH, —OR, —OSiH₃, —OSiRR'R'', —OCOR, —OCOOR, —OCONHR, —OCSNHR, —SH, —SR, —SOR, —SOOR, —OSO₂R, —OSO₂H, —NH₂, —NH₂SOOR, —NH₂, —NHCOR, —NHCOR', —NHR, —NRR', —N₃, —CN, halogen, —P⁺Ph₃ X⁻, —SiH₃, —SiRR'R'', —OCSOR, —

$$\begin{array}{c} \text{R}^9 \\ | \\ \text{---N---} \\ | \\ \text{R}^{10}\text{---NH} \end{array} \quad \text{---} \quad \begin{array}{c} \text{---O---} \\ | \\ \text{C=O} \\ | \\ \text{R}^9\text{---} \end{array} \quad \begin{array}{c} \text{NR}^{10}\text{R}^{11} \end{array},$$

$$\begin{array}{c} \text{R}^9 \\ | \\ \text{---N---} \end{array} \text{---CHR}^{10}\text{CO}_2\text{H},$$

$$\begin{array}{c} \text{---O---} \\ | \\ \text{P=O} \\ | \\ \text{O}^- \end{array}, \quad \begin{array}{c} \text{---O---} \\ | \\ \text{P=O} \\ | \\ \text{H} \end{array}, \quad \begin{array}{c} \text{---O---} \\ | \\ \text{P=O} \\ | \\ \text{HO} \end{array}, \quad \begin{array}{c} \text{---O---} \\ | \\ \text{P=O} \\ | \\ \text{H} \end{array};$$

$$\begin{array}{c} \text{---O---} \\ | \\ \text{C=O} \end{array} \text{---}(\text{CHR})_u\text{---} \begin{array}{c} \text{C=O} \\ | \\ \text{OR}^{13} \end{array}, \quad \begin{array}{c} \text{---O---} \\ | \\ \text{C=O} \end{array} \text{---}(\text{CHR}^{13})_u\text{---} \begin{array}{c} \text{C=O} \\ | \\ \text{OR}^{13} \end{array},$$

$$\begin{array}{c} \text{---O---} \\ | \\ \text{C=O} \end{array} \text{---}(\text{CHR}^{13})_u\text{---NR}^{14}\text{N}^{15}, \quad \begin{array}{c} \text{---O---} \\ | \\ \text{C=O} \end{array} \text{---}(\text{CHR}^{13})_u\text{---PR}^{14}\text{R}^{15} \quad \text{, } [[\text{or}]] \text{ and }$$

$$\begin{array}{c} \text{---O---} \\ | \\ \text{C=O} \end{array} \text{---}(\text{CHR}^{13})_u\text{---} \begin{array}{c} \text{P=O} \\ | \\ \text{OH} \end{array};$$

wherein each of R¹³, R¹⁴, and R¹⁵ is independently selected from the group consisting of H; C₁-C₈ alkyl optionally substituted with an aryl, a heterocycle, an alkoxy, a halo, an

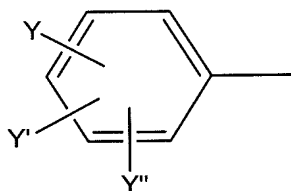
amine, or carboxylate; an aryl; and a heterocycle, and wherein u is an integer from 1 to about 16,

~~wherein each of R¹⁶ and R¹⁷ is independently H; C₁-C₈ alkyl optionally substituted with an aryl, a heterocycle, an alkoxy, a halo, an amine, or carboxylate; an aryl; or a heterocycle; a monohydroxylic or a polyhydroxylic group;~~

wherein the bond between the carbon to which Y is attached and the N of NR⁷ to which the carbon is attached is a single bond or a double bond, wherein, when the bond is a double bond, R⁷ is absent and Y is H, and, when the bond is a single bond, R⁷ is H and Y is a substituent selected from the group defined for X, wherein Y is optionally the same as X;

wherein each of T¹ and T² is independently O, S, or NR⁸;

wherein R, R', and R'' are independently selected from the group consisting of C₁-C₂₄ alkyl optionally substituted with an amino, hydroxyl, or thiol group, C₃-C₂₄ cycloalkyl, C₂-C₂₄ alkenyl, C₃-C₂₆ alkoxyacetyl, and a group of the structure:



wherein Y and Y' are independently hydrogen, C₁-C₂₄ alkyl, arylalkyl, C₂-C₂₄ alkenyl, C₂-C₂₄ alkynyl, C₁-C₂₄ alkoxy, halogen, or Y and Y' taken together form 3,4-methylenedioxy, and Y'' is hydrogen, C₁-C₂₄ alkyl, C₁-C₂₄ alkoxy, or halogen; naphthalenalkyl optionally substituted by methyl or halogen; phenyl(C₂-C₂₄ alkenyl) wherein the phenyl is optionally substituted with methyl or halogen; cinnamyl; pyridinealkyl optionally substituted with methyl or halogen; dihydropyridinealkyl optionally substituted with C₁-C₂₄ alkyl; thiophenealkyl optionally substituted with methyl or halogen; C₆-C₁₄ aryl; allyl; and furanalkyl optionally substituted with methyl or halogen;

wherein Z is a divalent radical of an alkane, an alkene, or an alkyne;

wherein p is an integer that is greater than or equal to 2;

wherein each of R³, R⁴, and R⁸ is independently a hydrogen; a C₁-C₂₄ alkyl, C₂-C₂₄ alkenyl, or C₂-C₂₄ alkynyl, optionally substituted with a group selected from the group

consisting of an aryl, a heterocycle, and an amine; or an aryl optionally substituted with an alkyl, an aryl, an alkoxy, a halo, an amine, a hydroxy, or a trifluoromethyl;

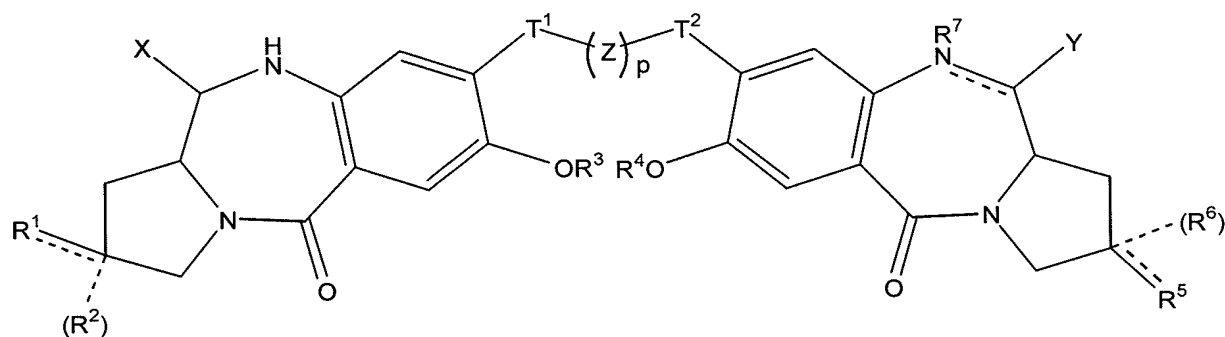
wherein the bond between R^1 and the carbon to which R^1 is attached is a single bond or a double bond, wherein, when the bond is a double bond, R^2 is absent and R^1 is a divalent radical derived from an alkane, an aromatic hydrocarbon, or a heterocycle, and when the bond is a single bond, R^1 and R^2 are independently selected from the group consisting of H, C_1 - C_8 alkyl, aryl, and a heterocycle; and

wherein the bond between R^5 and the carbon to which R^5 is attached is a single bond or a double bond, wherein, when the bond is a double bond, R^6 is absent and R^5 is a divalent radical derived from an alkane, an aromatic hydrocarbon, or a heterocycle, and when the bond is a single bond, R^5 and R^6 are independently selected from the group consisting of H, C_1 - C_8 alkyl, aryl, and a heterocycle;

or a salt thereof;

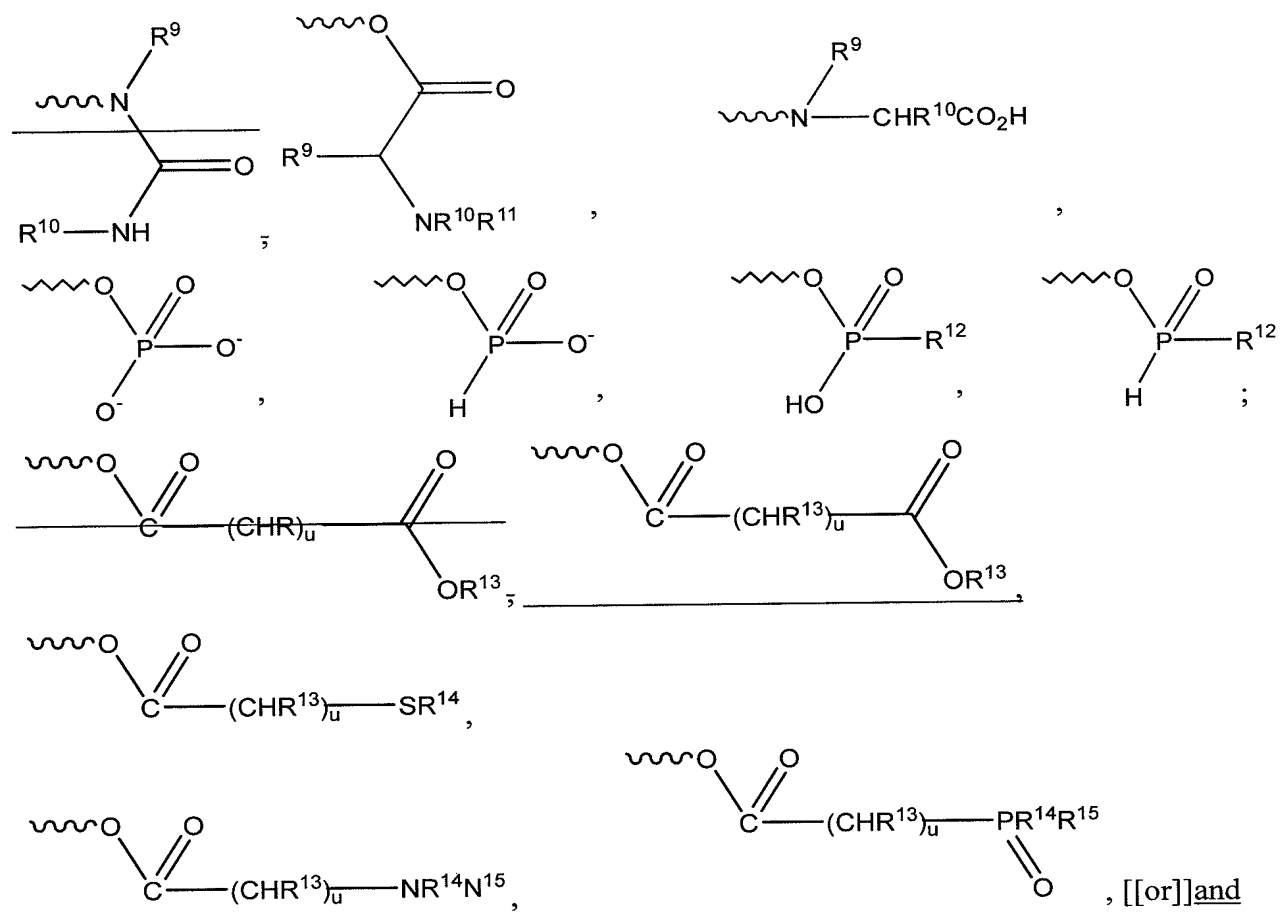
provided that, when each of R^1 and R^5 is CH_2 attached by a double-bond, R^2 and R^6 are absent, R^3 and R^4 are CH_3 , R^7 is H, T^1 and T^2 are both O, Z is CH_2 , and p is 3, then X and Y are not both methoxy, both ethoxy, or both hydroxyl; and when each of R^1 , R^2 , R^5 , and R^6 are H, then X and Y are not both sulfide or both ether.

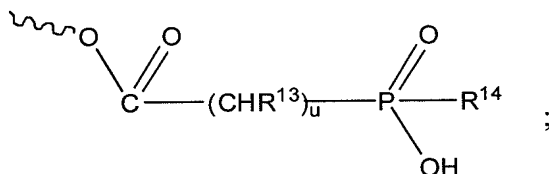
3. (Currently Amended) A compound of Formula I:



(Formula I)

wherein X is a substituent selected from the group consisting of $-\text{OSiH}_3$, $-\text{OSiRR}'\text{R}''$, $-\text{OCOR}$, $-\text{OCOOR}$, $-\text{OCONHR}$, $-\text{OCSNHR}$, $-\text{SH}$, $-\text{SR}$, $-\text{SOR}$, $-\text{SOOR}$, $-\text{OSO}_2\text{R}$, $-\text{OSO}_2\text{H}$, $-\text{NH}_2$, $-\text{NHCOR}$, $-\text{NHCOR}'$, $-\text{NHR}$, $-\text{NRR}'$, $-\text{N}_3$, $-\text{CN}$, halogen, $-\text{P}^+\text{Ph}_3 \text{X}^-$, $-\text{SiH}_3$, $-\text{SiRR}'\text{R}''$, cysteine, [[and]] glutathione,





wherein each of R^9 , R^{10} , and R^{11} is independently selected from the group consisting of H, a C_1 - C_8 alkyl optionally substituted with an amine or a carboxylate; an aryl; an aryl alkyl; and a heterocycle;

wherein R^{12} is C_1 - C_8 alkyl optionally substituted with an aryl, a heterocycle, an alkoxy, a halo, an amine, or carboxylate; an aryl; or a heterocycle,

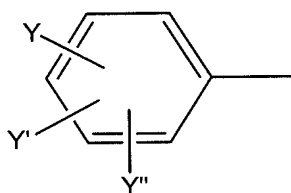
wherein each of R^{13} , R^{14} , and R^{15} is independently selected from the group consisting of H; C_1 - C_8 alkyl optionally substituted with an aryl, a heterocycle, an alkoxy, a halo, an amine, or carboxylate; an aryl; and a heterocycle, and wherein u is an integer from 1 to about 16,

~~wherein each of R^{16} and R^{17} is independently H; C_1 - C_8 alkyl optionally substituted with an aryl, a heterocycle, an alkoxy, a halo, an amine, or carboxylate; an aryl; or a heterocycle; a monohydroxylic or a polyhydroxylic group;~~

wherein the bond between the carbon to which Y is attached and the N of NR^7 to which the carbon is attached is a single bond or a double bond, wherein, when the bond is a double bond, R^7 is absent and Y is H, and, when the bond is a single bond, R^7 is H and Y is a substituent selected from the group defined for X, wherein Y is optionally the same as X;

wherein each of T^1 and T^2 is independently O, S, or NR^8 ;

wherein R, R' , and R'' are independently selected from the group consisting of C_1 - C_{24} alkyl optionally substituted with an amino, hydroxyl, or thiol group, C_3 - C_{24} cycloalkyl, C_2 - C_{24} alkenyl, C_3 - C_{26} alkoxyacetyl, and a group of the structure:



wherein Y and Y' are independently hydrogen, C₁-C₂₄ alkyl, arylalkyl, C₂-C₂₄ alkenyl, C₂-C₂₄ alkynyl, C₁-C₂₄ alkoxy, halogen, or Y and Y' taken together form 3,4-methylenedioxy, and Y'' is hydrogen, C₁-C₂₄ alkyl, C₁-C₂₄ alkoxy, or halogen; naphthalenalkyl optionally substituted by methyl or halogen; phenyl(C₂-C₂₄ alkenyl) wherein the phenyl is optionally substituted with methyl or halogen; cinnamyl; pyridinealkyl optionally substituted with methyl or halogen; dihydropyridinealkyl optionally substituted with C₁-C₂₄ alkyl; thiophenealkyl optionally substituted with methyl or halogen; C₆-C₁₄ aryl; allyl; and furanalkyl optionally substituted with methyl or halogen;

wherein Z is a divalent radical of an alkane, an alkene, or an alkyne;

wherein p is an integer that is greater than or equal to 2;

wherein each of R³, R⁴, and R⁸ is independently a hydrogen; a C₁-C₂₄ alkyl, C₂-C₂₄ alkenyl, or C₂-C₂₄ alkynyl, optionally substituted with a group selected from the group consisting of an aryl, a heterocycle, and an amine; or an aryl optionally substituted with an alkyl, an aryl, an alkoxy, a halo, an amine, a hydroxy, or a trifluoromethyl;

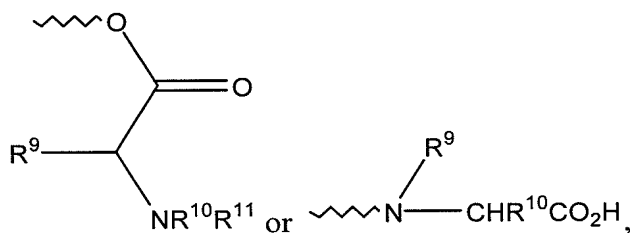
wherein the bond between R¹ and the carbon to which R¹ is attached is a single bond or a double bond, wherein, when the bond is a double bond, R² is absent and R¹ is a divalent radical derived from an alkane, an aromatic hydrocarbon, or a heterocycle, and when the bond is a single bond, R¹ and R² are independently selected from the group consisting of H, C₁-C₈ alkyl, aryl, and a heterocycle; and

wherein the bond between R⁵ and the carbon to which R⁵ is attached is a single bond or a double bond, wherein, when the bond is a double bond, R⁶ is absent and R⁵ is a divalent radical derived from an alkane, or an aromatic hydrocarbon, and when the bond is a single bond, R⁵ and R⁶ are independently selected from the group consisting of H, C₁-C₈ alkyl, aryl, and a heterocycle;

or a salt thereof.

4. (Currently Amended) The compound or a salt thereof of claim 1, wherein X is selected from the group consisting of:

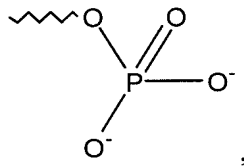
(a)



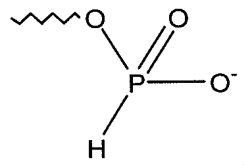
wherein each of R^9 , R^{10} , and R^{11} is independently selected from the group consisting of H, a C_1 - C_8 alkyl optionally substituted with an amine or a carboxylate; an aryl; an aryl alkyl; and a heterocycle,

(b) a group of the formula:

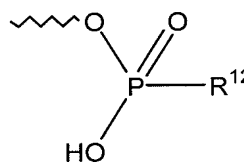
(i)



(ii)

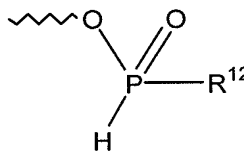


(iii)



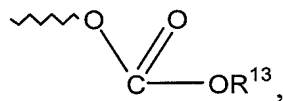
wherein R^{12} is C_1 - C_8 alkyl optionally substituted with an aryl, a heterocycle, an alkoxy, a halo, an amine, or carboxylate; an aryl; or a heterocycle, or

(iv)

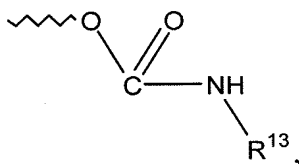


wherein R^{12} is C_1 - C_8 alkyl optionally substituted with an aryl, a heterocycle, an alkoxy, a halo, an amine, or carboxylate; an aryl; or a heterocycle,

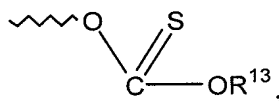
(c)



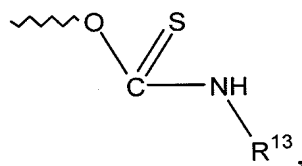
(d)



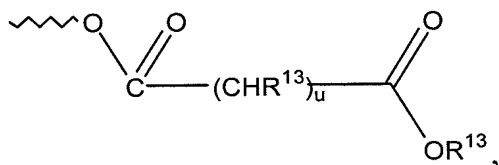
(e)



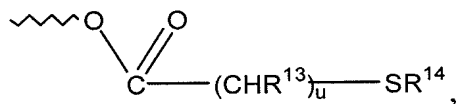
(f)



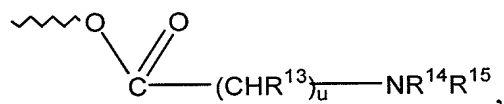
(g)



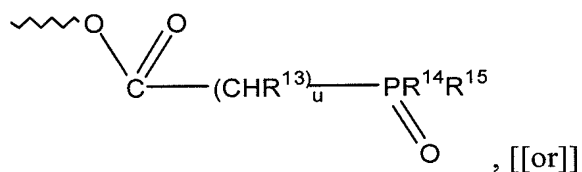
(h)



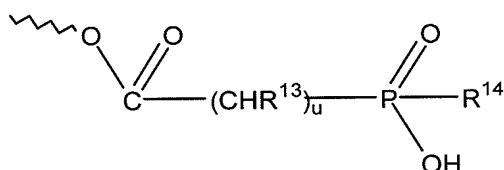
(i)



(j)

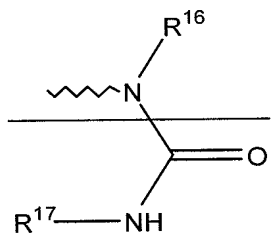


(k)



wherein, each of R^{13} , R^{14} , and R^{15} is independently selected from the group consisting of H; C_1 - C_8 alkyl optionally substituted with an aryl, a heterocycle, an alkoxy, a halo, an amine, or carboxylate; an aryl; and a heterocycle, and wherein u is 1 to about 16;

(l)



~~wherein each of R^{16} and R^{17} is independently H; C_1 - C_8 alkyl optionally substituted with an aryl, a heterocycle, an alkoxy, a halo, an amine, or carboxylate; an aryl; or a heterocycle, and~~ [(m)] (l) a monohydroxylic or a polyhydroxylic group.

5-15. (Canceled)

16. (Previously Presented) The compound or a salt thereof of claim 1, wherein each of T^1 and T^2 is O, p is 3 and Z is $-\text{CH}_2-$.

17. (Previously Presented) The compound or a salt thereof of claim 1, wherein R^1 and R^2 are not both H.

18. (Currently Amended) The compound or a salt thereof of claim 1, wherein each of R^3 and R^4 is a C_1 - C_8 alkyl optionally substituted with a group selected from the group consisting

of an aryl, H, and an aryl or amine; or an aryl optionally substituted with an alkyl, an aryl, an alkoxy, a halo, an amine, a hydroxy, or a trifluoromethyl.

19-20. (Canceled)

21. (Previously Presented) The compound or a salt thereof of claim 1, wherein R⁸ is H.

22-23. (Canceled)

24. (Previously Presented) The compound or a salt thereof of claim 1, wherein (a) each of X and Y is OH, (b) X is OH and Y is H, or (c) X is OR and R is an alkyl.

25-26. (Canceled)

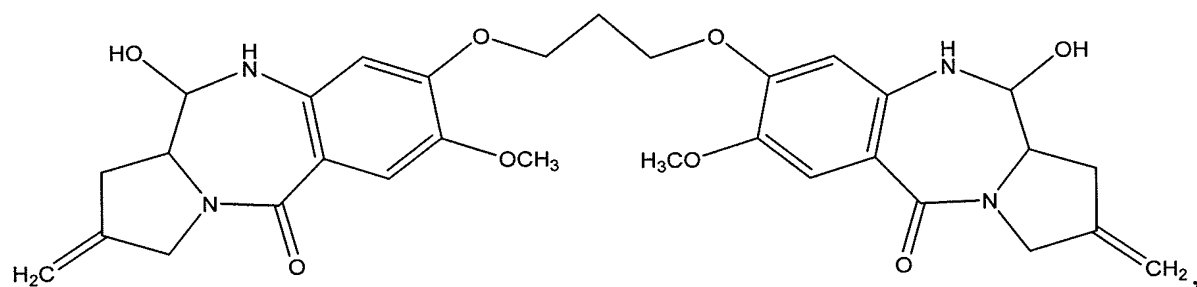
27. (Previously Presented) The compound or a salt thereof of claim 24, wherein X is OR and R is a C₁-C₈ alkyl.

28-29. (Canceled)

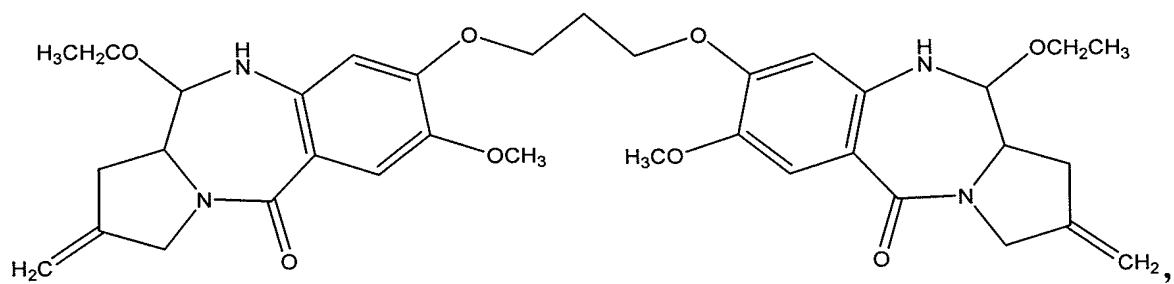
30. (Previously Presented) The compound or a salt thereof of claim 1, wherein Y is the same as X.

31. (Currently Amended) The compound or a salt thereof of claim 1, wherein the compound is selected from the group consisting of:

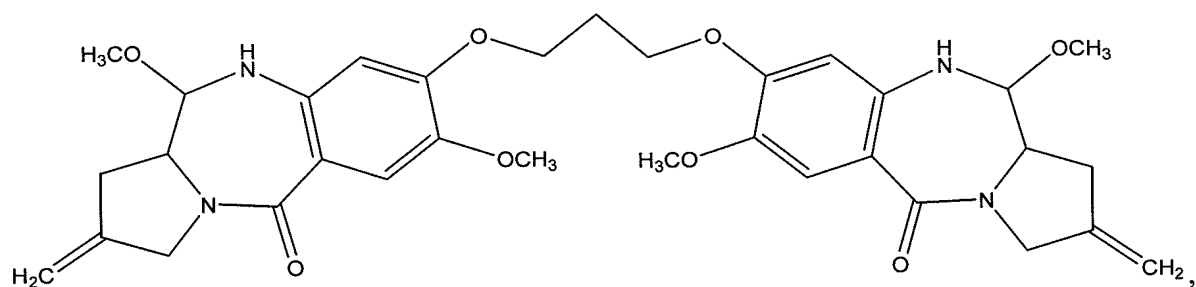
(a)



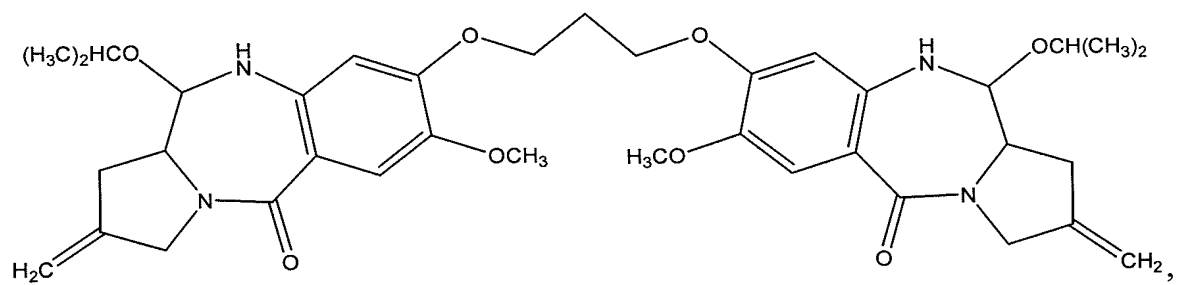
(b)



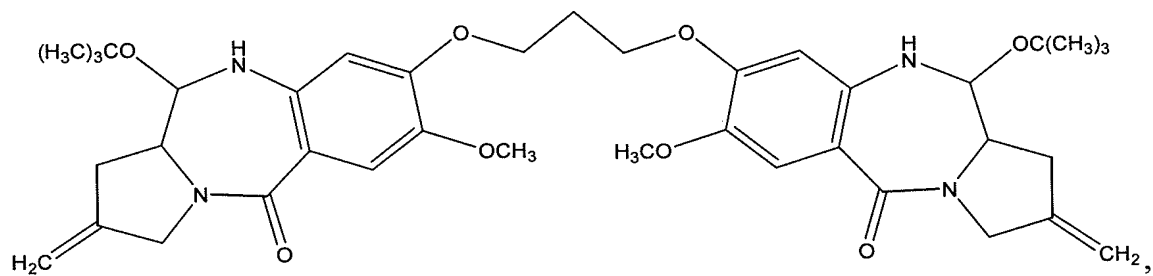
(c)



(d)

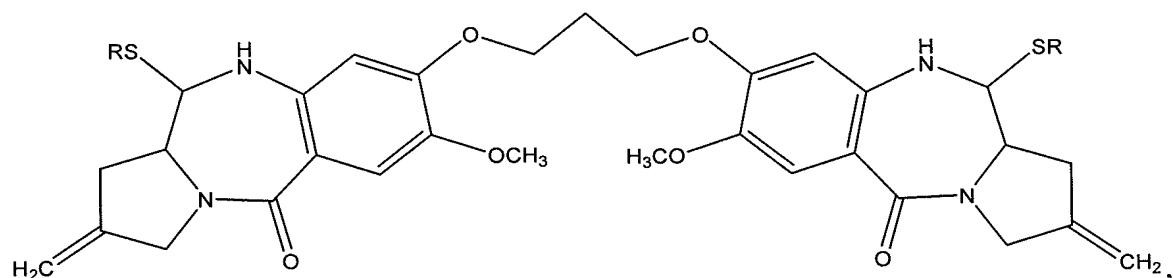


(e)

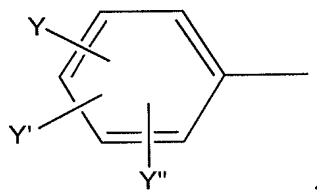


[[or]]and

(f)



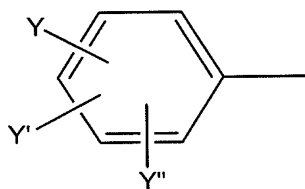
wherein, for structure (f), the following applies: R is ~~an alkyl~~; C₁-C₂₄ alkyl optionally substituted with an amino, hydroxyl, or thiol group; C₃-C₂₄ cycloalkyl, a C₂-C₂₄ alkenyl; a cyclohexylalkyl; a C₃-C₂₆ alkoxyacetyl; a naphthalenalkyl optionally substituted with methyl or halogen; a phenyl (C₃-C₂₆ alkenyl), wherein the phenyl is optionally substituted with methyl or halogen; a cinnamyl; a pyridinealkyl optionally substituted with methyl or halogen; a dihydropyridine alkyl optionally substituted with C₁-C₂₄ alkyl; a thiophenealkyl optionally substituted with methyl or halogen; an aryl; an allyl; a furanalkyl optionally substituted with methyl or halogen; cysteine; glutathione; or a group of structure



wherein each of Y and Y' is independently hydrogen, C₁-C₂₄ alkyl, arylalkyl, C₂-C₂₄ alkenyl, C₂-C₂₄ alkynyl, C₁-C₂₄ alkoxy, or halogen, or Y and Y' taken together form 3,4-methylenedioxy, and Y'' is hydrogen, C₁-C₂₄ alkyl, C₁-C₂₄ alkoxy, or halogen.

32-36. (Canceled)

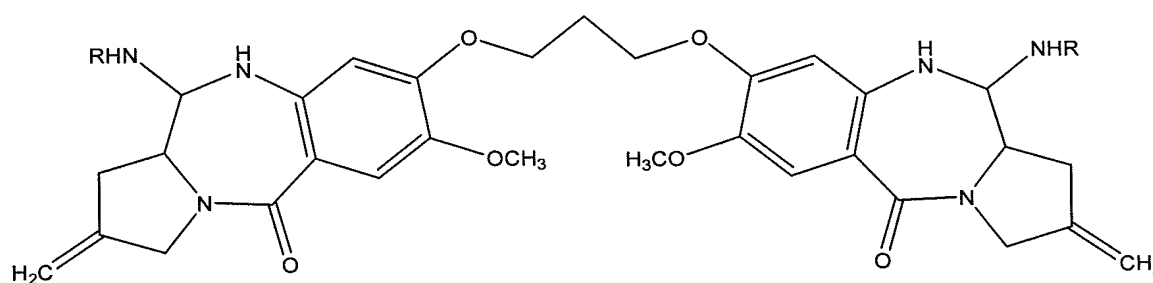
37. (Currently Amended) The compound or a salt thereof of claim 31, wherein the compound is of structure (f) and R is



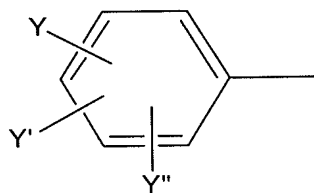
[[and]] wherein each of Y and Y' is independently hydrogen, C₁-C₈ alkyl, C₁-C₈ alkoxy, or halogen, or Y and Y' together form 3,4-methylenedioxy, and Y'' is hydrogen, C₁-C₈ alkyl, C₁-C₈ alkoxy or halogen.

38-39. (Canceled)

40. (Previously Presented) The compound or a salt thereof of claim 1, wherein the compound is



wherein R is C₁-C₂₄ alkyl optionally substituted with an amino, hydroxyl, or thiol group; a C₃-C₂₄ cycloalkyl; a C₂-C₂₄ alkenyl; a C₃-C₂₆ alkoxyacetyl; a naphthalenalkyl optionally substituted with methyl or halogen; phenyl (C₂-C₂₄ alkenyl), wherein the phenyl is optionally substituted with methyl or halogen; cinnamyl; pyridinealkyl optionally substituted with methyl or halogen; dihydropyridine alkyl optionally substituted with C₁-C₂₄ alkyl; thiophenealkyl optionally substituted with methyl or halogen; an aryl; an allyl; furanalkyl optionally substituted with methyl or halogen; or a group of structure



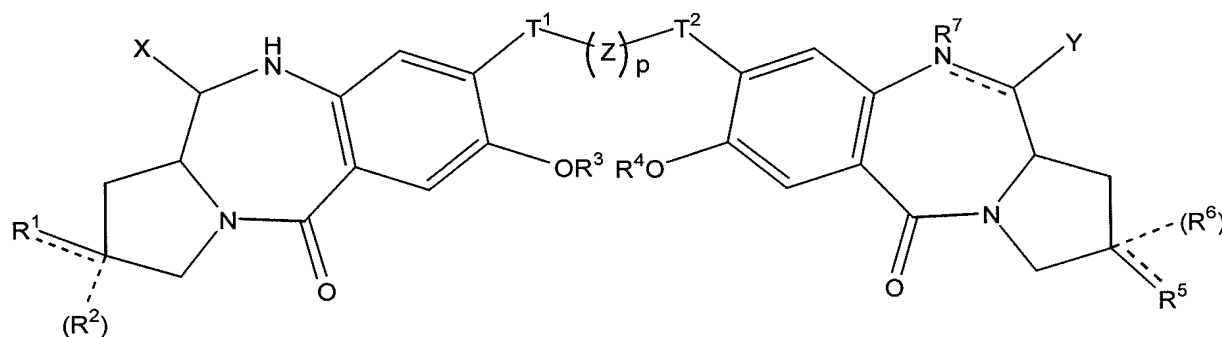
wherein each of Y and Y' is independently hydrogen, C₁-C₂₄ alkyl, C₁-C₂₄ alkoxy, or halogen, or Y and Y' together form 3,4-methylenedioxy, and Y'' is hydrogen, C₁-C₂₄ alkyl, C₁-C₂₄ alkoxy or halogen.

41-47. (Canceled)

48. (Previously Presented) A pharmaceutical composition comprising a compound or a salt thereof of claim 1 and a pharmaceutically acceptable carrier.

49-61. (Canceled)

62. (Previously Presented) A method of preparing the compound or a salt thereof of claim 1, wherein the compound is of Formula I



(Formula I)

wherein X is OH,

wherein the bond between the carbon to which Y is attached and the N of NR⁷ to which the carbon is attached is a single bond or a double bond, wherein, when the bond is a double bond, R⁷ is absent and Y is H, and, when the bond is a single bond, R⁷ is H and Y is OH;

wherein each of T¹ and T² is independently O, S, or NR⁸;

wherein Z is a divalent radical of an alkane, an alkene, or an alkyne;

wherein p is an integer that is greater than or equal to 2;

wherein each of R³, R⁴, and R⁸ is independently a hydrogen; a C₁-C₂₄ alkyl, C₂-C₂₄ alkenyl, or C₂-C₂₄ alkynyl, optionally substituted with a group selected from the group consisting of an aryl, a heterocycle, and an amine; or an aryl optionally substituted with an alkyl, an aryl, an alkoxy, a halo, an amine, a hydroxy, or a trifluoromethyl;

wherein the bond between R¹ and the carbon to which R¹ is attached is a single bond or a double bond, wherein, when the bond is a double bond, R² is absent and R¹ is a divalent radical derived from an alkane, or an aromatic hydrocarbon, or a heterocycle, and when the bond is a single bond, R¹ and R² are independently selected from the group consisting of H, C₁-C₈ alkyl, aryl, and a heterocycle; and

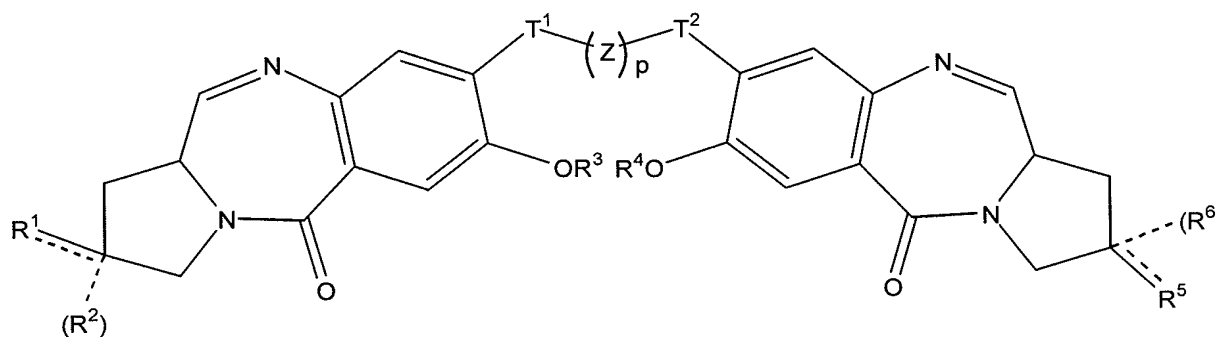
wherein the bond between R^5 and the carbon to which R^5 is attached is a single bond or a double bond, wherein, when the bond is a double bond, R^6 is absent and R^5 is a divalent radical derived from an alkane, an aromatic hydrocarbon, or a heterocycle, and when the bond is a single bond, R^5 and R^6 are independently selected from the group consisting of H, C_1 - C_8 alkyl, aryl, and a heterocycle;

or a salt thereof; and

wherein the compound is a solid;

which method comprises:

(a) providing a compound of Formula II:



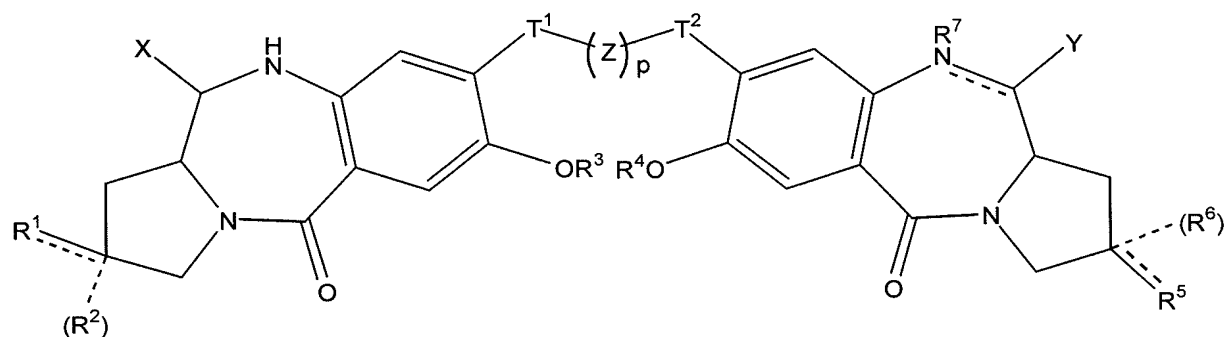
(Formula II)

wherein the definitions of R^1 , R^2 , R^3 , R^4 , R^5 , R^6 , T^1 , T^2 , Z , and p are the same as those for Formula I; and

(b) contacting the compound of Formula II with water, whereby the solid compound of Formula I is formed.

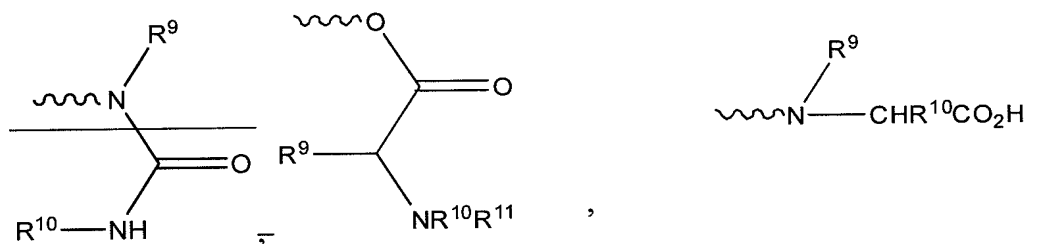
63-67. (Canceled)

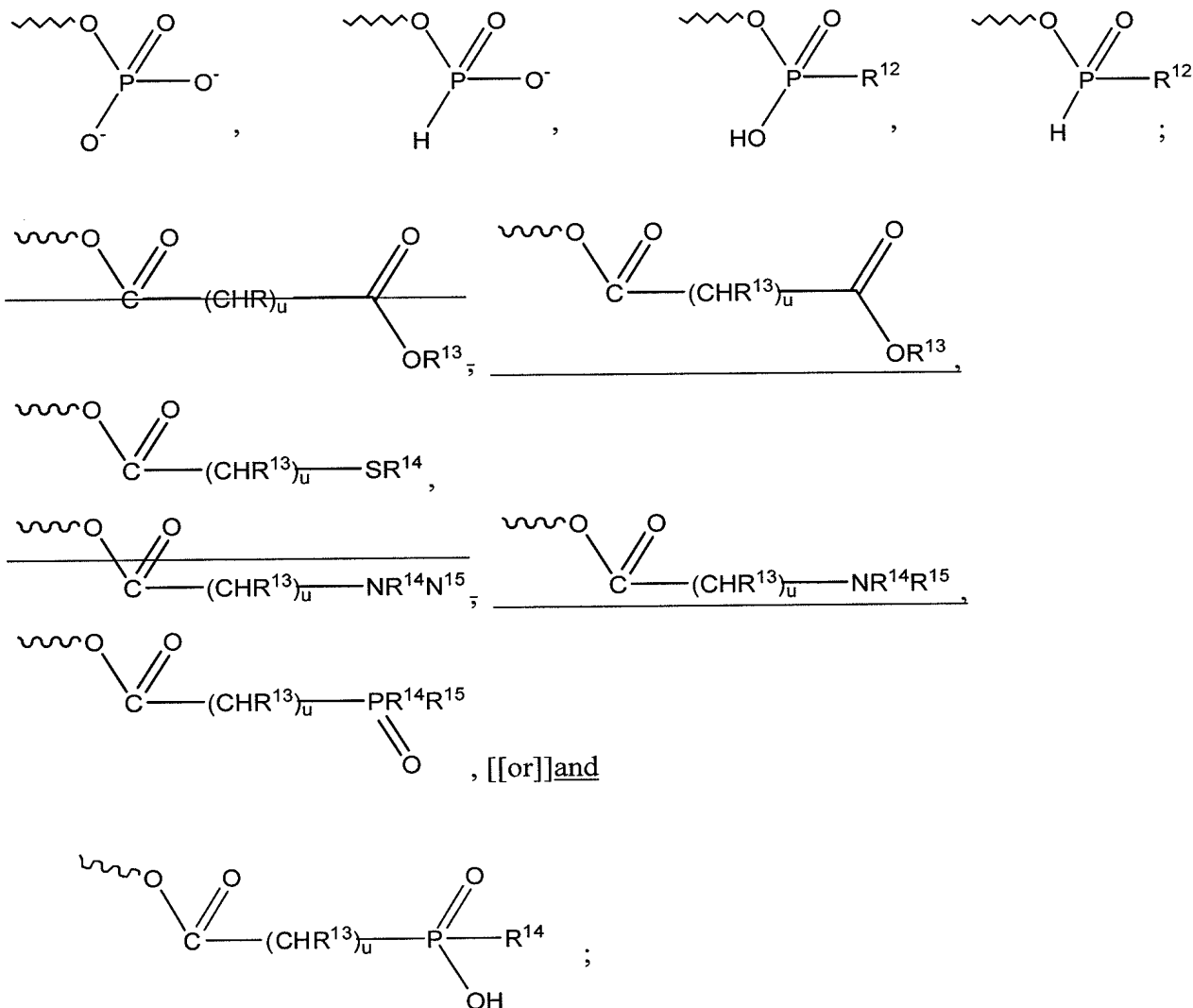
68. (Currently Amended) A method of preparing the compound or a salt thereof of claim 1, wherein the compound is of Formula I



(Formula I)

wherein X is a substituent selected from the group consisting of an OH, —OR, —OSiH₃, —OSiRR'R'', —OCOR, —OCOOR, —OCONHR, —OCSNHR, —SH, —SR, —SOR, —SOOR, —OSO₂R, —OSO₂H, —NH₂, —NH~~COR~~, —NR'COR, —NHR, —NRR', —N₃, —CN, halogen, —P⁺Ph₃ X⁻, —SiH₃, —SiRR'R'', —OCSOR, —OCO(CHR)_uCOOR, —OCO(CHR)_uSR', OCO(CHR)_uNR'R'', —OCO(CHR)_uP(=O)R'R'', —OCO(CHR)_uP(=O)(OH)(R'), cysteine, [[and]] glutathione,





wherein each of R^9 , R^{10} , and R^{11} is independently selected from the group consisting of H, a C_1 - C_8 alkyl optionally substituted with an amine or a carboxylate; an aryl; an aryl alkyl; and a heterocycle;

wherein R^{12} is C_1 - C_8 alkyl optionally substituted with an aryl, a heterocycle, an alkoxy, a halo, an amine, or carboxylate; an aryl; or a heterocycle,

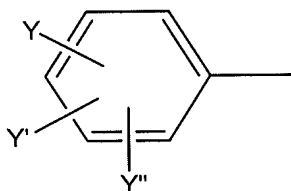
wherein each of R^{13} , R^{14} , and R^{15} is independently selected from the group consisting of H; C_1 - C_8 alkyl optionally substituted with an aryl, a heterocycle, an alkoxy, a halo, an amine, or carboxylate; an aryl; and a heterocycle, and wherein u is an integer from 1 to about 16,

~~wherein each of R¹⁶ and R¹⁷ is independently H; C₁-C₈ alkyl optionally substituted with an aryl, a heterocycle, an alkoxy, a halo, an amine, or carboxylate; an aryl; or a heterocycle; a monohydroxylic or a polyhydroxylic group;~~

wherein the bond between the carbon to which Y is attached and the N of NR⁷ to which the carbon is attached is a single bond or a double bond, wherein, when the bond is a double bond, R⁷ is absent and Y is H, and, when the bond is a single bond, R⁷ is H and Y is a substituent selected from the group defined for X, wherein Y is optionally the same as X;

wherein each of T¹ and T² is independently O, S, or NR⁸;

wherein R, R', and R'' are independently selected from the group consisting of C₁-C₂₄ alkyl optionally substituted with an amino, hydroxyl, or thiol group, C₃-C₂₄ cycloalkyl, C₂-C₂₄ alkenyl, C₃-C₂₆ alkoxyacetyl, and a group of the structure:



wherein Y and Y' are independently hydrogen, C₁-C₂₄ alkyl, arylalkyl, C₂-C₂₄ alkenyl, C₂-C₂₄ alkynyl, C₁-C₂₄ alkoxy, halogen, or Y and Y' taken together form 3,4-methylenedioxy, and Y'' is hydrogen, C₁-C₂₄ alkyl, C₁-C₂₄ alkoxy, or halogen; naphthalenalkyl optionally substituted by methyl or halogen; phenyl(C₂-C₂₄ alkenyl) wherein phenyl is optionally substituted with methyl or halogen; cinnamyl; pyridinealkyl optionally substituted with methyl or halogen; dihydropyridinealkyl optionally substituted with C₁-C₂₄ alkyl; thiophenealkyl optionally substituted with methyl or halogen; C₆-C₁₄ aryl; allyl; and furanalkyl optionally substituted with methyl or halogen;

wherein Z is a divalent radical of an alkane, an alkene, or an alkyne;

wherein p is an integer that is greater than or equal to 2;

wherein each of R³, R⁴, and R⁸ is independently a hydrogen; a C₁-C₂₄ alkyl, C₂-C₂₄ alkenyl, or C₂-C₂₄ alkynyl, optionally substituted with a group selected from the group consisting of an aryl, a heterocycle, and an amine; or an aryl optionally substituted with an alkyl, an aryl, an alkoxy, a halo, an amine, a hydroxy, or a trifluoromethyl;

wherein the bond between R^1 and the carbon to which R^1 is attached is a single bond or a double bond, wherein, when the bond is a double bond, R^2 is absent and R^1 is a divalent radical derived from an alkane, or an aromatic hydrocarbon, and when the bond is a single bond, R^1 and R^2 are independently selected from the group consisting of H, C_1 - C_8 alkyl, aryl, and

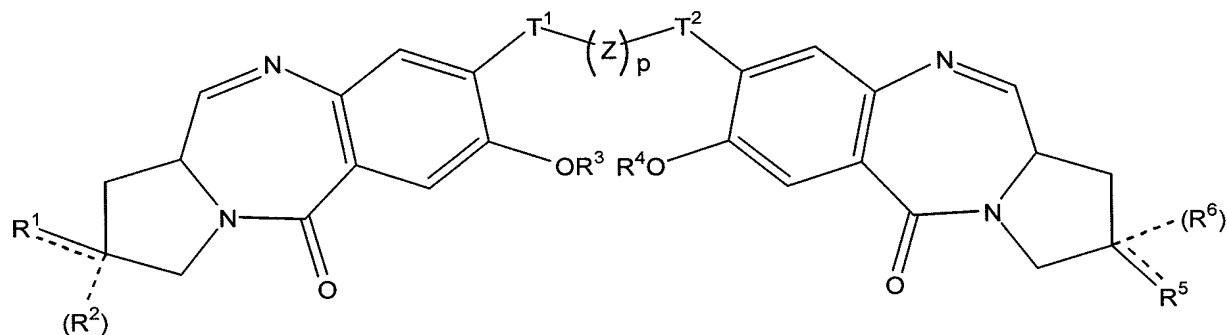
wherein the bond between R^5 and the carbon to which R^5 is attached is a single bond or a double bond, wherein, when the bond is a double bond, R^6 is absent and R^5 is a divalent radical derived from an alkane, or an aromatic hydrocarbon, and when the bond is a single bond, R^5 and R^6 are independently selected from the group consisting of H, C_1 - C_8 alkyl, and aryl;

or a salt thereof; and

wherein the compound is a solid;

which method comprises:

(a) providing a compound of Formula II:

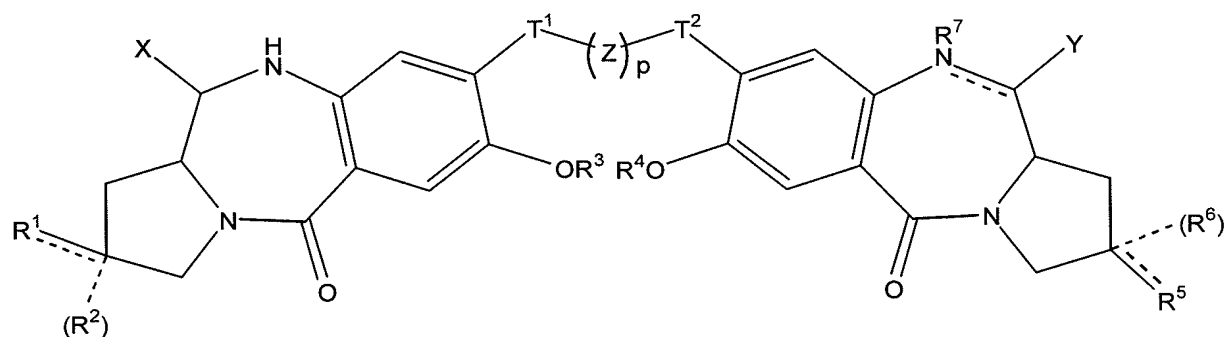


(Formula II)

wherein the definitions of R^1 , R^2 , R^3 , R^4 , R^5 , R^6 , T^1 , T^2 , Z , and p are the same as those for Formula I; and

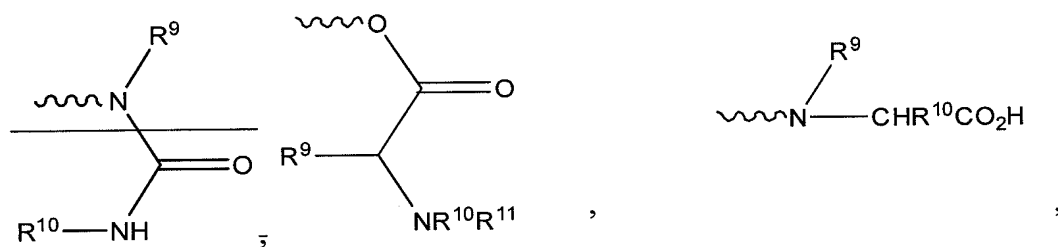
(b) combining the compound of Formula II with a nucleophilic organic reactant, wherein the nucleophilic part of the nucleophilic organic reactant provides X, whereby the solid compound of Formula I is formed.

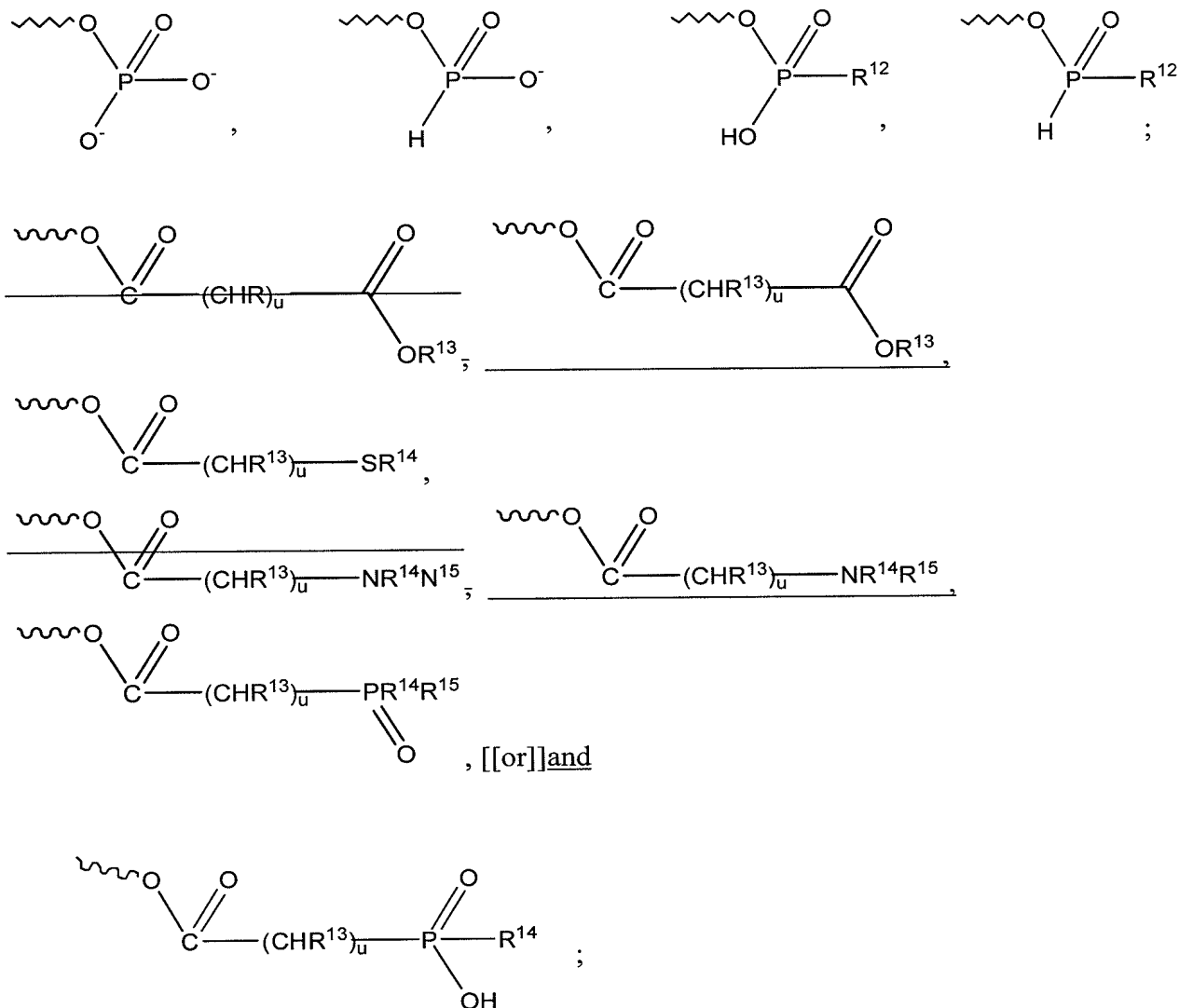
69. (Currently Amended) A method of preparing the compound or a salt thereof of claim 2, wherein the compound is of Formula I



(Formula I)

wherein X is a substituent selected from the group consisting of an OH, —OR, —OSiH₃, —OSiRR'R'', —OCOR, —OCOOR, —OCONHR, —OCSNHR, —SH, —SR, —SOR, —SOOR, —OSO₂R, —OSO₂H, —NH₂, —NH₂SOOR, —NH₂, —NHCOR, —NR'COR, —NHR, —NRR', —N₃, —CN, halogen, —P⁺Ph₃ X⁻, —SiH₃, —SiRR'R'', —OCSOR, —OCO(CHR)_uCOOR, —OCO(CHR)_uSR', OCO(CHR)_uNR'R'', —OCO(CHR)_uP(=O)R'R'', —OCO(CHR)_uP(=O)R'R'', —OCO(CHR)_uP(=O)(OH)(R'), cysteine, [[and]] glutathione,





wherein each of R^9 , R^{10} , and R^{11} is independently selected from the group consisting of H, a $\text{C}_1\text{-C}_8$ alkyl optionally substituted with an amine or a carboxylate; an aryl; an aryl alkyl; and a heterocycle;

wherein R^{12} is $\text{C}_1\text{-C}_8$ alkyl optionally substituted with an aryl, a heterocycle, an alkoxy, a halo, an amine, or carboxylate; an aryl; or a heterocycle,

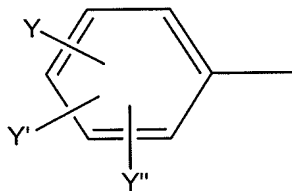
wherein each of R^{13} , R^{14} , and R^{15} is independently selected from the group consisting of H; $\text{C}_1\text{-C}_8$ alkyl optionally substituted with an aryl, a heterocycle, an alkoxy, a halo, an amine, or carboxylate; an aryl; and a heterocycle, and wherein u is an integer from 1 to about 16,

~~wherein each of R^{16} and R^{17} is independently H; C_1 - C_8 alkyl optionally substituted with an aryl, a heterocycle, an alkoxy, a halo, an amine, or carboxylate; an aryl; or a heterocycle; a monohydroxylic or a polyhydroxylic group;~~

wherein the bond between the carbon to which Y is attached and the N of NR^7 to which the carbon is attached is a single bond or a double bond, wherein, when the bond is a double bond, R^7 is absent and Y is H, and, when the bond is a single bond, R^7 is H and Y is a substituent selected from the group defined for X, wherein Y is optionally the same as X;

wherein each of T^1 and T^2 is independently O, S, or NR^8 ;

wherein R, R' , and R'' are independently selected from the group consisting of C_1 - C_{24} alkyl optionally substituted with an amino, hydroxyl, or thiol group, C_3 - C_{24} cycloalkyl, C_2 - C_{24} alkenyl, C_3 - C_{26} alkoxyacetyl, and a group of the structure:



wherein Y and Y' are independently hydrogen, C_1 - C_{24} alkyl, arylalkyl, C_2 - C_{24} alkenyl, C_2 - C_{24} alkynyl, C_1 - C_{24} alkoxy, halogen, or Y and Y' taken together form 3,4-methylenedioxy, and Y'' is hydrogen, C_1 - C_{24} alkyl, C_1 - C_{24} alkoxy, or halogen; naphthalenalkyl optionally substituted by methyl or halogen; phenyl(C_2 - C_{24} alkenyl) wherein the phenyl is optionally substituted with methyl or halogen; cinnamyl; pyridinealkyl optionally substituted with methyl or halogen; dihydropyridinealkyl optionally substituted with C_1 - C_{24} alkyl; thiophenealkyl optionally substituted with methyl or halogen; C_6 - C_{14} aryl; allyl; and furanalkyl optionally substituted with methyl or halogen;

wherein Z is a divalent radical of an alkane, an alkene, or an alkyne;

wherein p is an integer that is greater than or equal to 2;

wherein each of R^3 , R^4 , and R^8 is independently a hydrogen; a C_1 - C_{24} alkyl, C_2 - C_{24} alkenyl, or C_2 - C_{24} alkynyl, optionally substituted with a group selected from the group consisting of an aryl, a heterocycle, and an amine; or an aryl optionally substituted with an alkyl, an aryl, an alkoxy, a halo, an amine, a hydroxy, or a trifluoromethyl;

wherein the bond between R^1 and the carbon to which R^1 is attached is a single bond or a double bond, wherein, when the bond is a double bond, R^2 is absent and R^1 is a divalent radical derived from an alkane, or an aromatic hydrocarbon, or a heterocycle, and when the bond is a single bond, R^1 and R^2 are independently selected from the group consisting of H, C_1 - C_8 alkyl, aryl, and a heterocycle; and

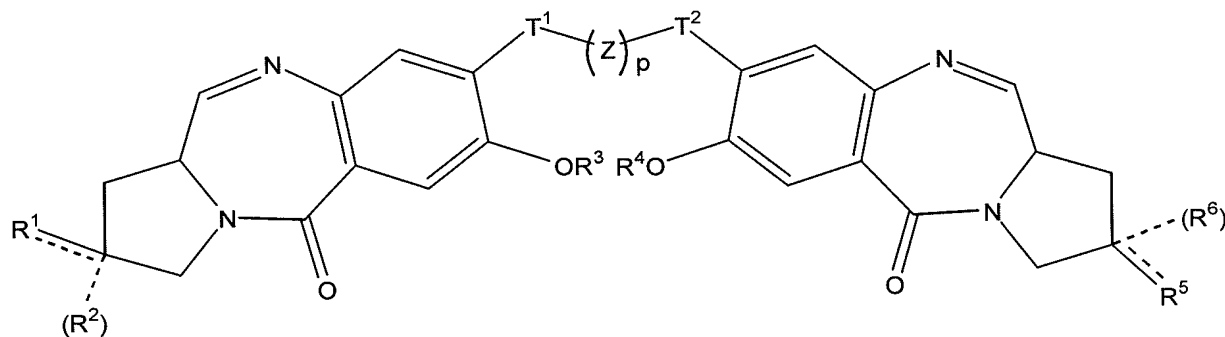
wherein the bond between R^5 and the carbon to which R^5 is attached is a single bond or a double bond, wherein, when the bond is a double bond, R^6 is absent and R^5 is a divalent radical derived from an alkane, or an aromatic hydrocarbon, or a heterocycle, and when the bond is a single bond, R^5 and R^6 are independently selected from the group consisting of H, C_1 - C_8 alkyl, aryl, and a heterocycle;

or a salt thereof; and

provided that, when each of R^1 and R^5 is CH_2 attached by a double-bond, R^2 and R^6 are absent, R^3 and R^4 are CH_3 , R^7 is H, T^1 and T^2 are both O, Z is CH_2 , and p is 3, then X and Y are not both methoxy, both ethoxy, or both hydroxyl; and when each of R^1 , R^2 , R^5 , and R^6 are H, then X and Y are not both sulfide or both ether;

which method comprises:

(a) providing a compound of Formula II:



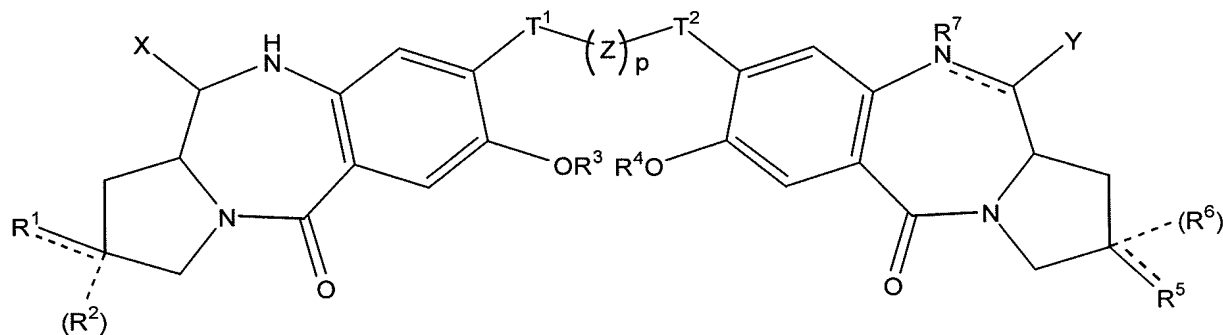
(Formula II)

wherein the definitions of R^1 , R^2 , R^3 , R^4 , R^5 , R^6 , T^1 , T^2 , Z, and p are the same as those for Formula I; and

(b) combining the compound of Formula II with a nucleophilic organic reactant other than methanol or ethanol, wherein the nucleophilic part of the nucleophilic organic reactant provides X,

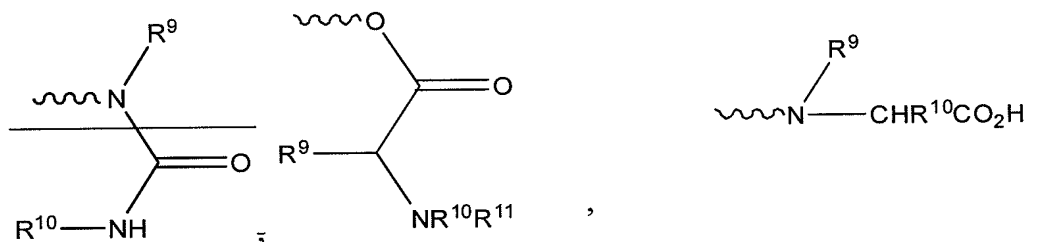
whereby the solid compound of Formula I is formed.

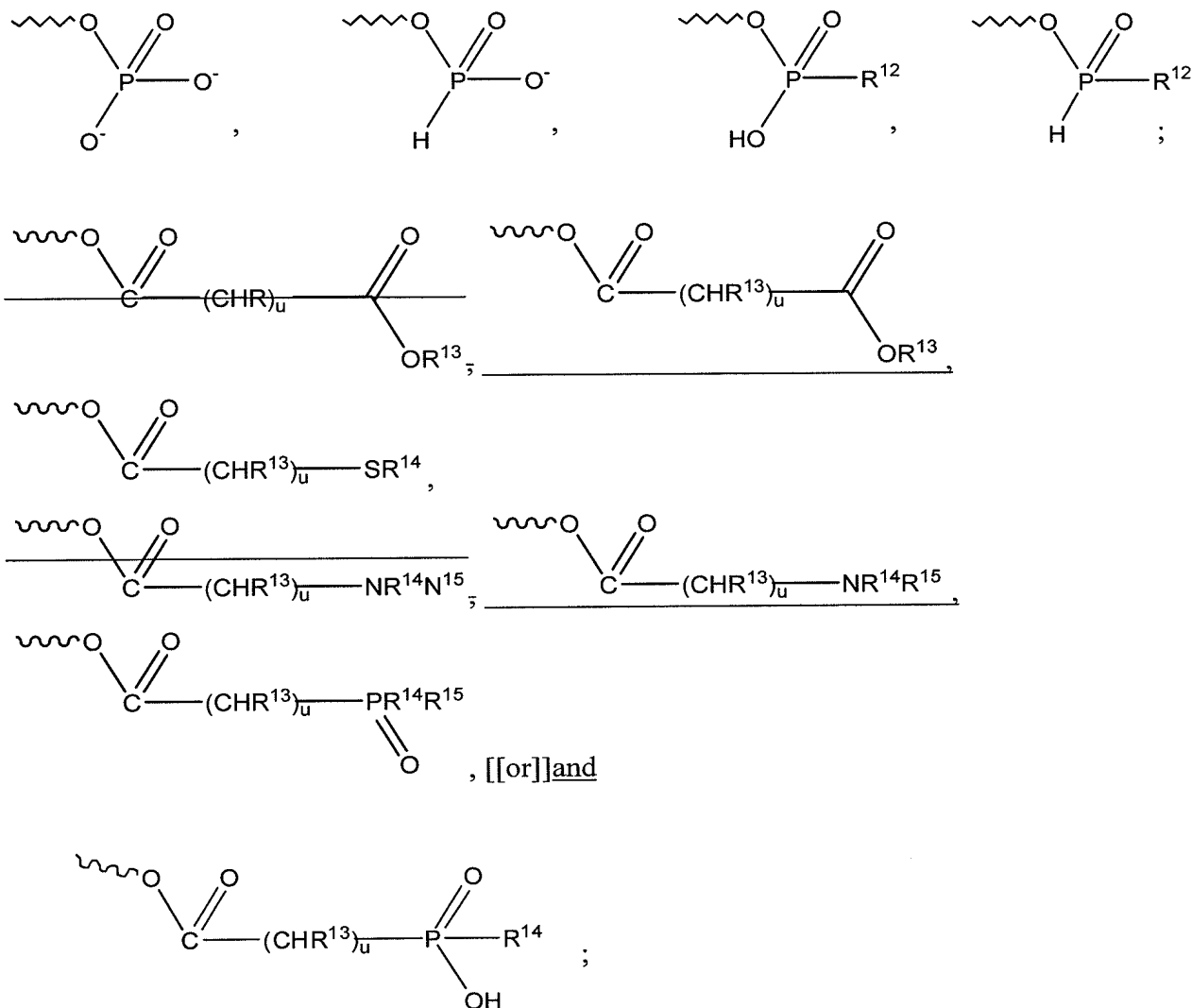
70. (Currently Amended) A method of preparing the compound or a salt thereof of claim 3, wherein the compound is of Formula I



(Formula I)

wherein X is a substituent selected from the group consisting of —OSiH₃, —OSiRR'R'', —OCOR, —OCOOR, —OCONHR, —OCSNHR, —SH, —SR, —SOR, —SOOR, —OSO₂R, —OSO₂H, —NH₂, —NH₂COR, —NR'COR, —NHR, —NRR', —N₃, —CN, halogen, —P⁺Ph₃ X⁻, —SiH₃, —SiRR'R'', cysteine, [[and]] glutathione,





wherein each of R^9 , R^{10} , and R^{11} is independently selected from the group consisting of H, a C₁-C₈ alkyl optionally substituted with an amine or a carboxylate; an aryl; an aryl alkyl; and a heterocycle;

wherein R^{12} is C₁-C₈ alkyl optionally substituted with an aryl, a heterocycle, an alkoxy, a halo, an amine, or carboxylate; an aryl; or a heterocycle,

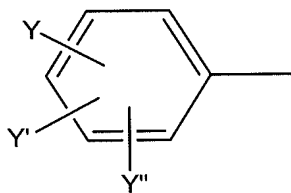
wherein each of R^{13} , R^{14} , and R^{15} is independently selected from the group consisting of H; C₁-C₈ alkyl optionally substituted with an aryl, a heterocycle, an alkoxy, a halo, an amine, or carboxylate; an aryl; and a heterocycle, and wherein u is an integer from 1 to about 16,

~~wherein each of R^{16} and R^{17} is independently H; C_1 - C_8 alkyl optionally substituted with an aryl, a heterocycle, an alkoxy, a halo, an amine, or carboxylate; an aryl; or a heterocycle; a monohydroxylic or a polyhydroxylic group;~~

wherein the bond between the carbon to which Y is attached and the N of NR^7 to which the carbon is attached is a single bond or a double bond, wherein, when the bond is a double bond, R^7 is absent and Y is H, and, when the bond is a single bond, R^7 is H and Y is a substituent selected from the group defined for X, wherein Y is optionally the same as X;

wherein each of T^1 and T^2 is independently O, S, or NR^8 ;

wherein R, R' , and R'' are independently selected from the group consisting of C_1 - C_{24} alkyl optionally substituted with an amino, hydroxyl, or thiol group, C_3 - C_{24} cycloalkyl, C_2 - C_{24} alkenyl, C_3 - C_{26} alkoxyacetyl, and a group of the structure:



wherein Y and Y' are independently hydrogen, C_1 - C_{24} alkyl, arylalkyl, C_2 - C_{24} alkenyl, C_2 - C_{24} alkynyl, C_1 - C_{24} alkoxy, halogen, or Y and Y' taken together form 3,4-methylenedioxy, and Y'' is hydrogen, C_1 - C_{24} alkyl, C_1 - C_{24} alkoxy, or halogen; naphthalenalkyl optionally substituted by methyl or halogen; phenyl(C_2 - C_{24} alkenyl) wherein the phenyl is optionally substituted with methyl or halogen; cinnamyl; pyridinealkyl optionally substituted with methyl or halogen; dihydropyridinealkyl optionally substituted with C_1 - C_{24} alkyl; thiophenealkyl optionally substituted with methyl or halogen; C_6 - C_{14} aryl; allyl; and furanalkyl optionally substituted with methyl or halogen;

wherein Z is a divalent radical of an alkane, an alkene, or an alkyne;

wherein p is an integer that is greater than or equal to 2;

wherein each of R^3 , R^4 , and R^8 is independently a hydrogen; a C_1 - C_{24} alkyl, C_2 - C_{24} alkenyl, or C_2 - C_{24} alkynyl, optionally substituted with a group selected from the group consisting of an aryl, a heterocycle, and an amine; or an aryl optionally substituted with an alkyl, an aryl, an alkoxy, a halo, an amine, a hydroxy, or a trifluoromethyl;

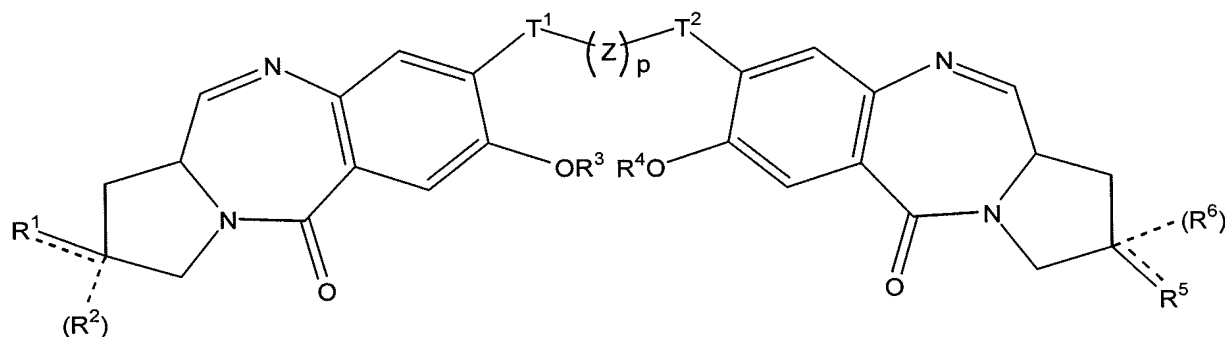
wherein the bond between R^1 and the carbon to which R^1 is attached is a single bond or a double bond, wherein, when the bond is a double bond, R^2 is absent and R^1 is a divalent radical derived from an alkane, or an aromatic hydrocarbon, or a heterocycle; and when the bond is a single bond, R^1 and R^2 are independently selected from the group consisting of H, C_1 - C_8 alkyl, and aryl, and a heterocycle; and

wherein the bond between R^5 and the carbon to which R^5 is attached is a single bond or a double bond, wherein, when the bond is a double bond, R^6 is absent and R^5 is a divalent radical derived from an alkane, an aromatic hydrocarbon, or a heterocycle, and when the bond is a single bond, R^5 and R^6 are independently selected from the group consisting of H, C_1 - C_8 alkyl, aryl, and a heterocycle;

or a salt thereof; and

which method comprises:

- (a) providing a compound of Formula II:



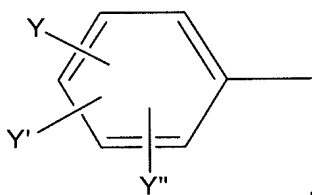
(Formula II)

wherein the definitions of R^1 , R^2 , R^3 , R^4 , R^5 , R^6 , T^1 , T^2 , Z , and p are the same as those for Formula I; and

- (b) combining the compound of Formula II with a nucleophilic organic reactant, wherein the nucleophilic part of the nucleophilic organic reactant provides X, and whereby the solid compound of Formula I is formed.

71-80. (Canceled)

81. (Currently Amended) The compound or a salt thereof of claim 1, wherein X is selected from the group consisting of OR, SR, [[or]] and an amine; wherein R is independently a hydrogen, a C_1 - C_{24} alkyl, or a group of structure



wherein each of Y and Y' is independently hydrogen, C₁-C₂₄ alkyl, C₁-C₂₄ alkoxy, or halogen, or Y and Y' together form 3,4-methylenedioxy, and Y'' is hydrogen, C₁-C₂₄ alkyl, C₁-C₂₄ alkoxy or halogen; wherein the bond between the carbon to which Y is attached and the N of NR⁷ to which the carbon is attached is a single bond; wherein Y is the same as X; wherein each of T¹ and T² is O; wherein Z is a divalent radical of an alkane; wherein p is 3; wherein each of R³ and R⁴ is independently a hydrogen or a C₁-C₂₄ alkyl; wherein the bond between R¹ and the carbon to which R¹ is attached is a single bond; and wherein the bond between R⁵ and the carbon to which R⁵ is attached is a single bond.

82. (Previously Presented) The compound or a salt thereof of claim 2, wherein each of T¹ and T² is O, p is 3 and Z is -CH₂-.

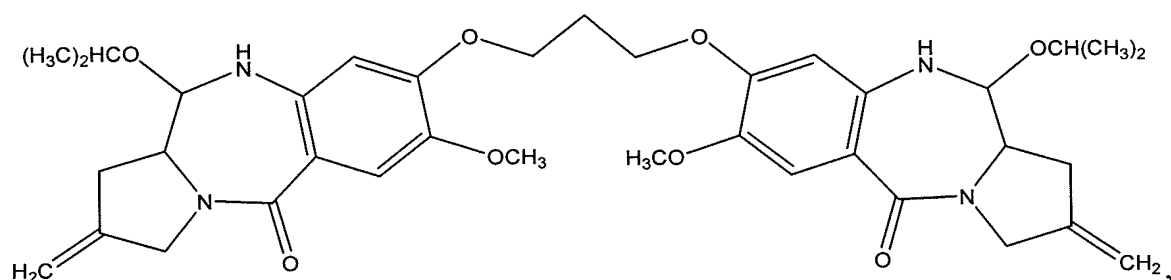
83. (Currently Amended) The compound or a salt thereof of claim 2, wherein each of R³ and R⁴ is a C₁-C₄ alkyl optionally substituted with a group selected from the group consisting of an aryl, a heterocycle, and an amine; or an aryl optionally substituted with an alkyl, an aryl, an alkoxy, a halo, an amine, a hydroxy, [[or]] and a trifluoromethyl.

84. (Currently Amended) The compound or a salt thereof of claim 2, wherein (a) each of X and Y is OH, (b) X is OH and Y is H, or (c) X is OR and R is a C^+-C^{24} C₁-C₂₄ alkyl.

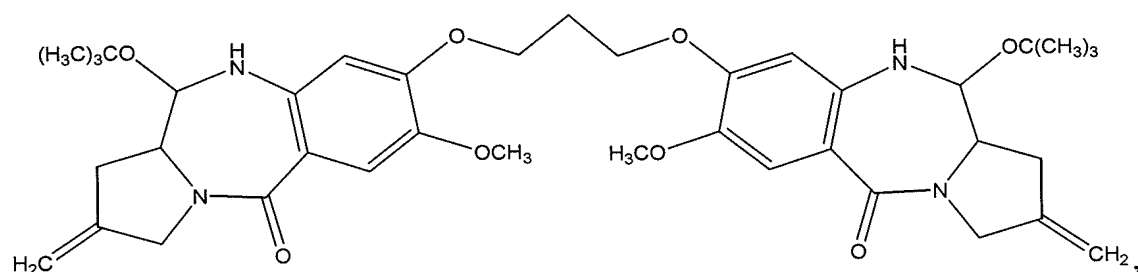
85. (Previously Presented) The compound or a salt thereof of claim 83, wherein X is OR and R is methyl, ethyl, isopropyl, or *t*-butyl.

86. (Currently Amended) The compound or a salt thereof of claim 2, wherein the compound is selected from the group consisting of:

(a)

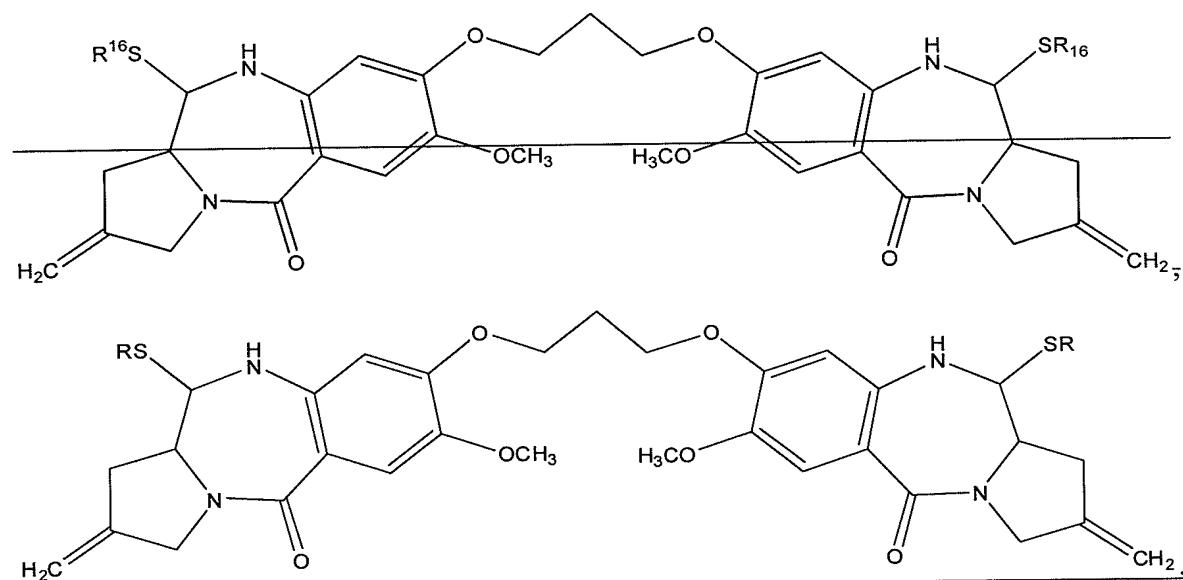


(b)



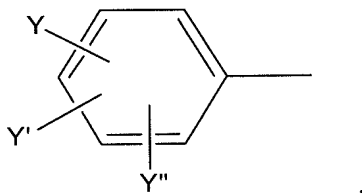
[[or]]and

(c)



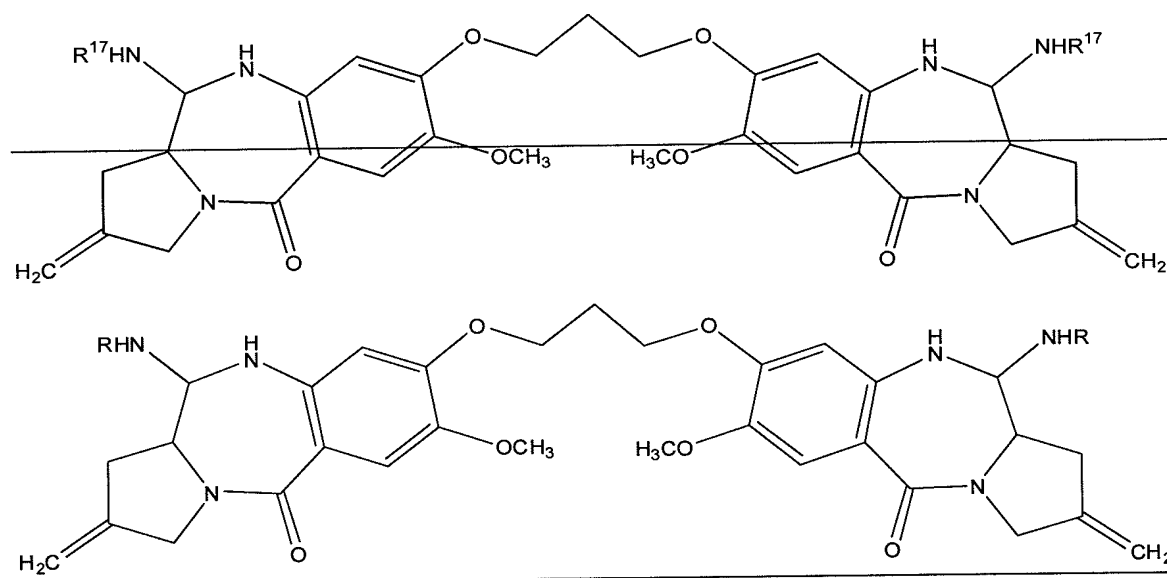
wherein, for structure (c), the following applies: ~~R¹⁶ is an alkyl~~; R is a C₁-C₂₄ alkyl optionally substituted with an amino, hydroxyl, or thiol group; C₃-C₂₄ cycloalkyl, a C₂-C₂₄ alkenyl; a C₃-C₂₆ alkoxyacetyl; a naphthalenalkyl optionally substituted with methyl or halogen; a phenyl (C₃-C₂₆ alkenyl), wherein the phenyl is optionally substituted with methyl or halogen; a cinnamyl; a pyridinealkyl optionally substituted with methyl or halogen; a dihydropyridine

alkyl optionally substituted with C₁-C₂₄ alkyl; a thiophenealkyl optionally substituted with methyl or halogen; an aryl; an allyl; a furanalkyl optionally substituted with methyl or halogen; ~~cysteine; glutathione~~; or a group of structure



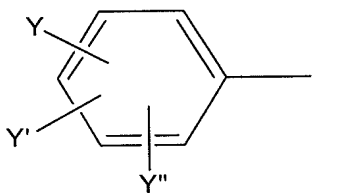
wherein each of Y and Y' is independently hydrogen, C₁-C₂₄ alkyl, arylalkyl, C₂-C₂₄ alkenyl, C₂-C₂₄ alkynyl, C₁-C₂₄ alkoxy, or halogen, or Y and Y' together form 3,4-methylenedioxy, and Y'' is hydrogen, C₁-C₂₄ alkyl, C₁-C₂₄ alkoxy or halogen.

87. (Currently Amended) The compound or a salt thereof of claim 2, wherein the compound is



wherein ~~R¹⁷ is an alkyl~~; R is a C₁-C₂₄ alkyl optionally substituted with an amino, hydroxyl, or thiol group; a C₃-C₂₄ cycloalkyl; ~~a cycloalkyl~~; a C₂-C₂₄ alkenyl; a C₃-C₂₆ alkoxyacetyl; a naphthalenalkyl optionally substituted with methyl or halogen; phenyl (C₂-C₂₄ alkenyl), wherein the phenyl is optionally substituted with methyl or halogen; cinnamyl; pyridinealkyl optionally substituted with methyl or halogen; dihydropyridine alkyl optionally substituted

with C₁-C₂₄ alkyl; thiophenealkyl optionally substituted with methyl or halogen; an aryl; an allyl; furanalkyl optionally substituted with methyl or halogen; or a group of structure



wherein each of Y and Y' is independently hydrogen, C₁-C₂₄ alkyl, arylalkyl, C₂-C₂₄ alkenyl, C₂-C₂₄ alkynyl, C₁-C₂₄ alkoxy, or halogen, or Y and Y' together form 3,4-methylenedioxy, and Y'' is hydrogen, C₁-C₂₄ alkyl, C₁-C₂₄ alkoxy or halogen.

88. (Previously Presented) A pharmaceutical composition comprising a compound or a salt thereof of claim 2 and a pharmaceutically acceptable carrier.

89-90. (Canceled)

91. (Previously Presented) The compound or a salt thereof of claim 3, wherein each of T¹ and T² is O, p is 3 and Z is -CH₂-.

92. (Currently Amended) The compound or a salt thereof of claim 3, wherein each of R³ and R⁴ is a C₁-C₄ alkyl optionally substituted with a group selected from the group consisting of an ~~aryl~~, aryl and an amine; or an aryl optionally substituted with an alkyl, an aryl, an alkoxy, a halo, an amine, a hydroxy, or a trifluoromethyl.

93. (Previously Presented) A pharmaceutical composition comprising a compound or a salt thereof of claim 3 and a pharmaceutically acceptable carrier.

94-95. (Canceled)

96. (Previously Presented) A method of treating cancer in a host comprising administering to a host a compound or a salt thereof of claim 1 in an amount effective to treat

cancer in the host, wherein the cancer is leukemia, non-small cell lung cancer, colon cancer, cancer of the central nervous system, melanoma, ovarian cancer, renal cancer, prostate cancer, or breast cancer.

97. (Currently Amended) The method ~~or a salt thereof~~ of claim 96, wherein the host is a human.

98. (Currently Amended) The method ~~or a salt thereof~~ of claim 96, wherein the compound or salt thereof is administered as an injectable formulation.

99. (Previously Presented) A method of treating cancer in a host comprising administering to a host a compound or a salt thereof of claim 2 in an amount effective to treat cancer in the host, wherein the cancer is leukemia, non-small cell lung cancer, colon cancer, cancer of the central nervous system, melanoma, ovarian cancer, renal cancer, prostate cancer, or breast cancer.

100. (Previously Presented) The method of claim 99, wherein the host is a human.

101. (Currently Amended) The method of claim 99, wherein the compound or salt thereof is administered as an injectable formulation.

102. (Previously Presented) A method of treating cancer in a host comprising administering to a host a compound or a salt thereof of claim 3 in an amount effective to treat cancer in the host, wherein the cancer is leukemia, non-small cell lung cancer, colon cancer, cancer of the central nervous system, melanoma, ovarian cancer, renal cancer, prostate cancer, or breast cancer.

103. (Previously Presented) The method of claim 102, wherein the host is a human.

104. (Currently Amended) The method of claim 102, wherein the compound or salt thereof is administered as an injectable formulation.